Amendments to the Claims

The following Listing of Claims replaces all prior versions, and listings, of claims in the application.

Listing of Claims:

Claim 1 (currently amended): A method of organizing a collection of objects arranged in a sequence ordered in accordance with a selected dimension of context-related metadata respectively associated with the objects, comprising:

~~segmenting~~classifying ~~a sequence of~~the objects in the sequence to generate a series of ~~into~~ object clusters ~~based on~~, wherein the classifying comprises sequentially processing each of the objects as a respective candidate for segmentation into a respective current one of the object clusters in the series and, for each of the candidate objects,

determining a candidate object interval separating the candidate object from an adjacent object in the sequence already segmented into the current object cluster, the candidate object interval being measured in the selected dimension of the context-related metadata,

~~comparisons of successive object intervals~~comparing the candidate object interval to a weighted ~~measures~~measure of cluster extent for the current object cluster, the measure of cluster extent corresponding to a current distance spanned by all the objects in the current object cluster measured in the selected dimension of the context-related metadata, and

comparing the candidate object interval~~comparisons of successive object intervals~~ to a weighted ~~measures~~ measure of ~~cluster~~ object density for the current object cluster, the measure of object density corresponding to a measure of distribution of distances separating adjacent ones of the objects in the current object cluster measured in the selected dimension of the context-related metadata.

Claim 2 (currently amended): The method of claim 1, wherein the measure~~measures~~ of cluster extent for each current object cluster corresponds to ~~spans of~~a temporal distance

spanned by recorded generation times ~~over which~~associated with all objects in the current object cluster~~ clusters respectively extend~~.

Claim 3 (currently amended): The method of claim 1, wherein the measure~~measures~~ of cluster extent for each current object cluster corresponds to ~~spans of~~a spatial distance spanned by recorded generation locations ~~over which~~associated with all objects in the current object cluster~~clusters respectively extend~~.

Claim 4 (currently amended): The method of claim 1, wherein the measure ~~measures~~ of ~~cluster~~ object density for each current object cluster corresponds to an average temporal distance separating adjacent~~measures of time intervals between successive~~ objects in the ~~clusters~~current object cluster.

Claim 5 (currently amended): The method of claim 1, wherein ~~measures~~ the measure of ~~cluster~~ object density for each current object cluster corresponds to an average ~~averages of space intervals between successive~~spatial distance separating adjacent objects in the current object cluster~~ clusters~~.

Claim 6 (currently amended): The method of claim 1, wherein the ~~segmenting~~classifying ~~the object sequence~~ comprises merging consecutive ones of the candidate objects into a ~~given~~current one of the object clusters until the candidate object interval determined for~~an interval between~~ a current one of the candidate objects ~~and a preceding object in the given cluster~~ exceeds the~~a threshold computed based on a~~ weighted measure of ~~the~~cluster extent ~~of~~for the ~~given~~current cluster, at which point a ~~new~~successive one of the object clusters in the series is initiated with the current candidate object.

Claim 7 (currently amended): The method of claim 1, wherein the ~~segmenting~~classifying ~~the object sequence~~ comprises merging consecutive ones of the candidate objects into a ~~given~~current one of the object clusters until the candidate object interval determined for~~an interval between~~ a current one of the candidate objects ~~and a preceding object in the given cluster~~ exceeds the~~a threshold computed based on a~~ weighted

measure of object density ~~in~~for the ~~given~~current object cluster, at which point a successive one of the object~~new~~ clusters in the series is initiated with the current candidate object.

Claim 8 (currently amended): The method of claim 1, wherein the processing comprises determining the weighted measures of cluster extent by applying to the measures of cluster extent respective weights ~~applied to the measures of cluster extent~~that decrease with increasing sizes of the respective object clusters ~~size~~.

Claim 9 (currently amended): The method of claim 1, wherein the processing comprises determining the weighted measures of cluster extent by applying to the measures of cluster extent respective weights ~~applied to the measures of cluster object density~~that decrease with increasing sizes of the respective object clusters ~~size~~.

Claim 10 (currently amended): The method of claim 1, further comprising customizing at least one of the weights applied to the measures of cluster extent based on an analysis of objects in the corresponding object cluster.

Claim 11 (currently amended): The method of claim 10, wherein the customizing comprises scaling at least one of the weights applied to the measures of cluster extent ~~is customized~~ based on a fractal dimension estimate of recorded time generation~~for context-related~~ meta data associated with the objects in the collection.

Claim 12 (currently amended): The method of claim 1, further comprising customizing at least one of the weights applied to the measures of cluster object density based on an analysis of objects in the corresponding object cluster.

Claim 13 (currently amended): The method of claim 12, wherein the customizing comprises scaling at least one of the weights applied to the measures of cluster extent ~~is customized~~ based on a fractal dimension estimate of recorded time generation~~for context-related~~ meta data associated with the objects in the collection.

Claim 14 (currently amended): The method of claim 1, wherein ~~segmenting the sequence of objects~~the processing further comprises comparing the object density of a candidate object~~given~~ cluster consisting of the current object cluster and the~~including a~~ candidate object with a~~the~~ weighted measure of object density for the ~~given~~current object cluster ~~without the candidate object~~.

Claim 15 (currently amended): The method of claim 14, wherein ~~measures~~ the measure of ~~cluster~~ object density for each current object cluster corresponds to an average temporal distance separating adjacent ~~averages of time intervals between successive~~ objects in the ~~clusters~~current object cluster.

Claim 16 (currently amended): The method of claim 14, wherein ~~measures~~ the measure of ~~cluster~~ object density for each current object cluster corresponds to an average spatial distance separating adjacent~~averages of space intervals between successive~~ objects in the ~~clusters~~current object cluster.

Claim 17 (currently amended): The method of claim 14, wherein the ~~measure~~ measure of object density for each object cluster corresponds to a moving average ~~density of~~distance separating adjacent objects in the current object cluster.

Claim 18 (currently amended): The method of claim 14, wherein the processing comprises determining the weighted measures of cluster extent by applying to the measures of cluster extent respective weights ~~applied to the measures of cluster object density~~that decrease with increasing sizes of the respective object clusters ~~size~~.

Claim 19 (currently amended): The method of claim 1, wherein the processing comprises processing each of the candidate objects sequentially~~are segmented~~ beginning at a first end of the object sequence.

Claim 20 (currently amended): The method of claim 19, wherein ~~objects are~~the processing further comprises processing each of the candidate objects sequentially ~~segmented~~ beginning at a second end of the object sequence opposite the first end.

Claim 21 (currently amended): The method of claim 1, wherein the sequence to be segmented includes objects of the following types: text, audio, graphics, still images, video and business events.

Claim 22 (currently amended): A system of organizing a collection of objects arranged in a sequence ordered in accordance with a selected dimension of context-related metadata respectively associated with the objects, comprising:

a segmentation engine operable to ~~segment~~classify ~~a sequence of~~the objects in the sequence to generate a series of ~~into~~ object clusters ~~based on~~, wherein the segmentation engine is operable to sequentially process each of the objects as a respective candidate for segmentation into a respective current one of the object clusters in the series and, for each of the candidate objects, perform operations comprising

determining a candidate object interval separating the candidate object from an adjacent object in the sequence already segmented into the current object cluster, the candidate object interval being measured in the selected dimension of the context-related metadata,

~~comparisons of successive object intervals~~compare the candidate object interval to a weighted ~~measures~~measure of cluster extent for the current object cluster, the measure of cluster extent corresponding to a current distance spanned by all the objects in the current object cluster measured in the selected dimension of the context-related metadata, and

comparing the candidate object interval~~comparisons of successive object intervals~~ to a weighted ~~measures~~ measure of cluster object density for the current object cluster, the measure of object density corresponding to a measure of distribution of distances separating adjacent ones of the objects in the current object cluster measured in the selected dimension of the context-related metadata.

Claim 23 (original): A method of organizing a collection of objects, comprising: segmenting objects from the collection into clusters;

extracting context-related meta data associated with the objects and parsable into multiple levels of a name hierarchy; and

assigning names to clusters based on the extracted context-related meta data corresponding to a level of the name hierarchy selected to distinguish segmented clusters from one another.

Claim 24 (original): The method of claim 23, wherein names are assigned to clusters based on the extracted context-related meta data corresponding to a highest level of the name hierarchy that distinguishes clusters from each other.

Claim 25 (original): The method of claim 23, wherein the context-related meta data corresponds to object generation times.

Claim 26 (original): The method of claim 23, wherein the context-related meta data corresponds to object generation locations.

Claim 27 (original): The method of claim 26, wherein the context-related meta data corresponds to recorded information relating to country, city, and state of object generation.

Claim 28 (original): The method of claim 23, wherein the context-related meta data corresponds to both object generation times and object generation locations.

Claim 29 (original): The method of claim 23, further comprising automatically naming objects in a given cluster based on the name assigned to the given cluster.

Claim 30 (original): The method of claim 29, wherein the objects in the given cluster are named automatically in accordance with a chronological ordering of the objects in the given cluster.

Claim 31 (original): The method of claim 29, further comprising storing objects in the given cluster in a tree structure organized by cluster and labeled in accordance with the assigned names.

Claim 32 (original): A system of organizing a collection of objects, comprising:

a segmentation engine operable to segment objects from the collection into clusters; and

a naming engine operable to extract context-related meta data associated with the objects and parsable into multiple levels of a name hierarchy, and assign names to each cluster based on the extracted context-related meta data corresponding to a level of the name hierarchy selected to distinguish segmented clusters from one another.

Claim 33 (currently amended): A method of organizing a collection of objects, comprising:

accessing a sequence of objects segmented into clusters each including multiple constituent objects arranged in a respective sequence in accordance with context-related meta data associated with the objects;

selecting for each object cluster at least two constituent objects representative of beginning and ending instances in the corresponding object sequence; and

in a user interface, graphically presenting the selected representative objects of each cluster without graphically presenting representations of unselected ones of the constituent objects of the clusters.

Claim 34 (currently amended): The method of claim 33, further comprising graphically presenting a selected one of the clusters as a stack of partially overlapping images representative of multiple objects in athe selected cluster ~~in response to user input~~.

Claim 35 (currently amended): The method of claim 34, further comprising revealing an increased portion of a given one of the representative images in the stack in response to detection of a user-controlled display icon positioned over the given representative image.

Claim 36 (currently amended): The method of claim 33, wherein the ~~representative objects of any given cluster are presented closer to each other than to the representative objects of other clusters~~presenting comprises presenting the selected representative objects with the spacing between adjacent ones of the selected representative objects in the same

cluster smaller than the spacing between adjacent ones of the selected representative objects in different clusters.

Claim 37 (original): The method of claim 33, further comprising merging objects of one cluster into an adjacent cluster in response to user input.

Claim 38 (original): The method of claim 37, wherein objects of one cluster are merged into an adjacent cluster in response to dragging and dropping of the objects to be merged.

Claim 39 (original): The method of claim 37, wherein the objects of the one cluster are merged into the adjacent cluster in response to user selection of an icon for merging the clusters.

Claim 40 (original): The method of claim 33, further comprising presenting a graphical representation of distributions of objects in the clusters.

Claim 41 (original): The method of claim 40, wherein a object distribution for a given cluster is presented as object instances plotted along an axis corresponding to a scaled representation of the context-related extent spanned by the given cluster.

Claim 42 (original): The method of claim 40, further comprising splitting a given cluster in response to user selection of a point in the representation of the object distribution presented for the given cluster.

Claim 43 (original): The method of claim 40, further comprising automatically splitting a given cluster into two or more clusters in response to user input.

Claim 44 (original): The method of claim 43, wherein the given cluster is automatically split into a user-selected number of sub-clusters.

Claim 45 (original): The method of claim 43, wherein the given cluster is automatically split based on relative sizes of intervals between successive objects in the given cluster.

Claim 46 (original): The method of claim 33, wherein the context-related meta data corresponds to object generation times.

Claim 47 (original): The method of claim 33, wherein the context-related meta data corresponds to object generation locations.

Claim 48 (original: The method of claim 33, wherein the segmented sequence includes objects of the following types: text, audio, graphics, still images, video, and business events.

Claim 49 (original): The method of claim 33, further comprising graphically presenting at least one link to an object of a cluster arranged in a sequence in accordance with time-related meta data in a calendar format.

Claim 50 (original): The method of claim 33, further comprising graphically presenting at least one link to an object of a cluster arranged in a sequence in accordance with location-related meta data in a map format.

Claim 51 (currently amended): A system of organizing a collection of objects, comprising a user interface layout engine operable to perform operations comprising:

accessing a sequence of objects from the collection segmented into clusters each including multiple objects arranged in a respective sequence in accordance with context-related meta data associated with the objects;

selecting for each object cluster at least two constituent objects representative of beginning and ending instances in the corresponding object sequence; and

in a user interface, graphically presenting the selected representative objects of each cluster on a screen without graphically presenting representations of unselected ones of the constituent objects of the clusters, wherein the user interface layout engine presents ~~with~~ the

selected representative objects with the spacing between adjacent ones of the selected representative objects in the same cluster smaller than the spacing between adjacent ones of the selected representative objects in different clusters ~~of any given cluster presented closer to each other than to the representative objects of other clusters~~.